

specifick Gravity of these Crystals renders the cleaning it less troublesome, and less expensive, than in any other Oar whatever. It requires no more, than that the whole Stuff be stamped to a fine Powder, after which it is washed by a Water, whose Force is so moderated as to wash away only the lightest Parts. This Stamping and Washing is repeated till the Oar is left exceedingly clean, and yields in Metal from $\frac{1}{2}^{\frac{8}{10}}$ to $\frac{1}{2}^{\frac{9}{10}}$ th, according as it is cleansed from the Load, and as it is in its own Nature more or less free from Iron.

Begging Leave to defer the Account of *Lead* and *Copper*, I am

July the 1st.
1728.

Your very humble Servant,

F. Nicholls.

IV. *A Method of raising some exotick Seeds, which have been judged almost impossible to be raised in England, communicated in a Letter to Dr. Douglas, Coll. Med. Soc. honorar. and R. S. S. By Mr. Philip Miller, Gardiner to the Physick-Garden at Chelsea.*

S I R,

According to my Promise, I here send you an Account of the Methods I have taken to raise the *Coco-Nut*, with the Success of each; which hath led

me to a sure Method for raising such Seeds which have hard Coats, or Shells surrounding them; and have been judged very difficult, if not impossible to be raised in *England*.

In the Year 1724, I had a Parcel of fresh *Coco-Nuts* given me, which were brought over from *Barbados*: Part of these Nuts I divested of their outer Coat, or Husk, and the other Part I left intire as I received them. Both these Parcels I planted in large Pots, filled with good fresh Earth, and plunged the Pots into a Hot-bed made with *Tanners-bark*; giving them gentle and frequent Waterings as the Earth in the Pots seemed to require; but had not one, out of the whole Number, which made any Attempt to shoot, as I could perceive; and upon taking them out of the Pots, I found they were rotten. About four Months after, I received another fresh Parcel of *Coco-Nuts* from *Barbados*, which I treated in another Manner: Part of these I cut off the outer Coat or Husk from, and the other Part I left intire as before: But supposing it was owing to my planting the other Parcel in *Pots*, that they did not succeed, I made a fresh Hot-bed (with *Horse-dung*) and covered it over with *fresh Earth*, about 18 Inches thick, in which I planted the Nuts: observing as before, to supply it with *convenient Moisture*, as also to keep the Hot-bed in an *equal Temper of Heat* (which I was guided to do by a *Thermometer* graduated for the Use of *Hot-beds*); but with all my Care I had no better Success than before; not one of the Nuts making any Essay towards *shooting*. The Year following I had another Parcel of *Coco-Nuts* given me, which, considering my former ill Success, I planted in a different Manner, as follows. Having a Hot-bed, which

which had been lately made with *Tanners-bark*, and which was filled with Pots of exotic Plants, I removed two of the largest Pots, which were placed in the Middle of the Bed, and opening the *Tanners-bark* under the Place where the two Pots stood, I placed the two *Coco-Nuts* therein, laying them Side-ways, to prevent the *Moisture* (which might descend from the Pots) from entring the Hole at the Base of the Fruit, and thereby rot the seminal Plant upon its first *germinating*. I then covered the Nuts over with the *Bark* two or three Inches thick, and placed the two Pots over them in their former Station. In this Place I let the Nuts remain for six Weeks; when removing the two Pots, and uncovering the Nuts, I found them both shot from the *Hole* in the *Base* of the Fruit, an Inch in Length; and from the other *End* of the Fruit were several Fibres emitted two or three Inches in Length. Upon finding them in such a Forwardness, I took them out of the *Bark*, and planted them in large Pots, filled with *good fresh Earth*, plunging the Pots down to their Rims in the *Tanners-bark*, and covering the Surface of the Earth in the Pots half an Inch thick with the same: Soon after which the young Shoots were above two Inches long, and continued to thrive very well. I have communicated this Method since to some of my Acquaintance, who have tried it with the same Success; and if the Nuts are fresh, scarce any of them miscarry. This led me to try if the same Method would succeed as well with other *hard-shell'd, exotic Seeds*, which I could not, by any Method I had before tried, get to grow, as the *Bonduc*, or *Nickar-Tree*; the *Abrus*, or *Wild Liquorice*; the *Phaseolus Brasiliensis frutescens lobis villosis*

lofis pungentibus maximus Hermannii, or *Horse-eye Bean*; with several others; and I have found it both a sure and expeditious Way to raise *any Sort* of *hard-shell'd Fruits*, or *Seeds*. For the *Heat* and *Moisture* (which are absolutely necessary to promote Vegetation) they here enjoy in an *equal* and *regular* Manner; the *Tanners-bark* (if rightly managed) keeping to near an *Equality* of Heat for six Months, and the *Water* which descends from the Pots, when they are watered, is by the Bark detained from being too soon dissipated: which cannot be obtained in a common Hot-bed, the Earth in such being worked away by the Water, and thereby leaving the Seeds often destitute of Moisture. Some of these Seeds I have had shoot in a Fortnight's Time; which I am inform'd, would not have so done in a Month in their native Soil and Climate. I have also found this to be an excellent Method to restore Orange (or any other exotic) Trees, which have suffered by a tedious Passage, in being too long out of the Ground: Infomuch I recovered two Orange-trees which had been ten Months without either Earth or Water. If this proves acceptable to you, it will be a Pleasure to,

S I R,

Your most Obedient,

Humble Servant,

Philip Miller.